



What Is the Science, Technology, Engineering and Mathematics (STEM) Career Cluster?

A career in science, technology, engineering or mathematics is exciting, challenging, and ever-changing. Learners who pursue one of these career fields will be involved in planning, managing, and providing scientific research and professional and technical services including laboratory and testing services, and research and development services.

Possible/Related Careers for the STEM Career Cluster

There are over 80 careers related to the STEM Career Cluster, including but not limited to the following examples:

- Aerospace Engineer
- Analytical Chemist
- Biomedical Engineer
- CAD Technician
- Civil Engineer
- Computer Programmer
- Engineering Tech
- GIS Specialist
- Math Teacher
- Mechanical Engineer
- Statistician
- Technical Writer

Possible/Related Majors for the STEM Career Cluster

There are an increasing number of college majors related to the STEM Career Cluster, and among the most common are:

- Applied Mathematics
- Chemistry
- Computational Science
- Engineering (various)
- Genetics
- Materials Science
- Mathematics
- Physics
- Robotics

Related OLCHS Co-Curricular Activities for the STEM Career Cluster

OLCHS students are encouraged to participate in co-curricular activities. Some related to the STEM Career Cluster are:

- Drama Crew
- Mathletes
- STEM Club

Related Service Learning Sites for the STEM Career Cluster

OLCHS students are required to earn service learning hours in order to graduate. Some volunteer sites related to the STEM Career Cluster are:

Name	Location
Advocate Christ Medical Center	4440 W. 95 th St., Oak Lawn
Dreams for Kids	Various sites available
Habitat for Humanity	Various sites available
Lake Katherine Nature Preserve	7402 Lake Katherine Drive, Palos Heights
Little Red Schoolhouse	9800 South 104 th Ave., Willow Springs
The Village of Oak Lawn Forestry Department and Green Team	Village Hall, 9440 S. Raymond Ave., Oak Lawn
Various elementary and/or middle schools – contact staff about tutoring opportunities!	

Aligned Elective Courses for the STEM Career Cluster

Although required courses align with all 16 Career Clusters, students *must* take these courses in order to graduate from OLCHS. Therefore, they are not included below. Students are encouraged to customize their 4-year plan with specific courses, related prerequisite courses and related career information on Career Cruising.

This guide is intended to provide general information related to career interest areas. It does not imply any guaranteed acceptance into a program of study. Students and families should carefully review post-secondary goals and entrance requirements for all post-secondary institutions of interest. Students and families are encouraged to use this as a supplemental guide during their planning.

Department and Elective Courses	9	10	11	12
Art				
Sketching & Drawing		X	X	X
Clay Construction and Clay Construction II		X	X	X
AP Studio Art*				X
Business				
Google It	X	X	X	X
Microsoft Office Applications	X	X	X	X
Mobile Apps Development	X	X	X	X
Mobile Apps II		X	X	X
Web Design				
Foreign Language				
French or French Honors	X	X	X	X
Spanish or Spanish Honors	X	X	X	X
Spanish for Heritage Speakers	X	X	X	X
Industrial Technology				
Automotive Essentials	X	X	X	X
Electricity & Electronics I	X	X	X	X
Electricity & Electronics II*	X	X	X	X
PLTW: Introduction to Engineering Design*	X	X	X	X
Automotive Maintenance & Light Repair		X	X	X
Computer Servicing I		X	X	X
Computer Servicing II*		X	X	X
PLTW: Principles of Engineering*		X	X	X
Advanced Auto Technology			X	X
Independent Study: Computers			X	X
PLTW: Engineering Design & Development			X	X
Music				
Music Technology	X	X	X	X
Math				
AP Computer Science Principles*	X	X	X	X
Pre-Calculus			X	X
Pre-Calculus Honors			X	X
AP Calculus*				X
AP Statistics*				X
Transition to College Math				X
Science				
Advanced Biology – Human Systems			X	X
Advanced Biology – Gene Tech. & Forensic Science			X	X
AP Biology*			X	X
Environmental Science			X	X
Introduction to Advanced Chemistry			X	X
Introduction to Anatomy & Physiology			X	X
Zoology			X	X
Advanced Physics				X
AP Physics C: Mechanics*				X
Social Science				
AP Human Geography*	X	X	X	X
Geography	X	X	X	X
History of Chicago			X	X
Law in American Society			X	X
Psychology			X	X
Sociology			X	X
AP Psychology*			X	X
Career Exploration				
Technology Support Internship		X	X	X

*The Federal Career Clusters framework recommends students enroll in Advanced Placement and/or Dual Credit courses when available and relevant.